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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,225	11/08/2000	Keith Luker	1511-00	1140

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EXAMINER

SORKIN, DAVID L

ART UNIT	PAPER NUMBER
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1723

6

DATE MAILED: 02/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/708,225

Applicant(s)

LUKER, KEITH

Examiner

David L. Sorkin

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T-2-6

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 21-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-33 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-20, drawn to a rotatable screw mixer, classified in class 366, subclass 88.

II. Claims 21-33, drawn to a method of mixing plastic, classified in class 366, subclass 348.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus could be used to mixer other materials such as food. Also, the method could be practiced wherein the screw is be rotated by hand rather than by "means for rotating".

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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5. During a telephone conversation with Austin Miller on 13 February 2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 21-33 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Generally, it is unclear what the terms "connected" and "unconnected" used throughout the claims are intended to imply. It would appear that all parts of a single screw are connected.

9. In claim 1, it is unclear what is meant by "a subsequent said channel". It is suggested that the phrase instead read - -a subsequent channel - - that and any other desired limitations concerning the subsequent channel be explicitly recited.

10. In claim 1, there is lack of antecedent basis for "said output channel".

11. In claim 3, the scope of "an upstream feed is connected" is unclear because not statement of what the feeder is connected to is recited.

12. In claim 4, there is lack of antecedent basis for "the input" and "the flow rate mixer input".

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13. In claim 15, there is lack of antecedent basis for "said non-inlet channels".

14. In claim 17, there is lack of antecedent basis for "said plastic material".

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 1-11 and 13-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Araki (US 3,184,790). Regarding claim 1, Araki ('790) discloses an extruder mixer comprising a rotatable elongated screw (2) and means for rotating said screw (see col. 3, line 59 to col. 4, line 1), said screw having a mixing section having an inlet channel (5, for example at the 11 o'clock position in Fig. 2), connected to a cross-axial pump (4, for example at the 10 o'clock position in Fig. 2), wherein a subsequent channel (5, for example at the 9 o'clock position in Fig. 2) is connected to further feed at least one subsequent cross-axial pump (4, for example at the 8 o'clock position in Fig. 2 that is bound by a flight (4, for example at the 6 o'clock position in Fig. 2). Regarding claim 2, the cross-axial pumps are bounded by channels on more than one side (see Fig. 2). Regarding claim 3, an upstream feeder is connected (see col. 2, lines 34-35). Regarding claim 4, a screw channel is provided (see col. 2, lines 34-35). Regarding claim 5, an output flight (3) is connected to a downstream flight of said mixer section. Regarding claim 6, an output flight (3) is connected to a channel of said extruder mixing section. Regarding claim 7, the dimensions of the channels are substantially the same

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as each other (see Fig. 2). Claim 8, fails to further structurally limit the claimed apparatus because the orientation of a claimed apparatus is a matter of use, not structure. The manner in which an apparatus is used does not differentiate a claimed apparatus from the prior art. See MPEP 2114. Regarding claim 9, the height of the walls of the channels are slightly different (see Fig. 2). Regarding claims 10 and 11, subsequent pumps such that the dimensions of said first and subsequent pumps are the same and different from each other are both disclosed (see Fig. 2, for example at the 2, 4, 8 and 10 o'clock positions). Regarding claim 13, said channels are oriented at an angle to the screw axis (see col. 2, lines 44-47). Claim 14 is difficult to address do to its high degree of indefiniteness; however, a channel bounded by a flight on one side is disclosed (see Fig 2). Regarding claim 15, at least some of said channels are bounded by a flight on two sides (see Fig. 2). Regarding claim 16, the manner in which an apparatus is used does not differentiate a claimed apparatus from the prior art. See MPEP 2114. Regarding claim 17, resistance devices (4) are provided on said screw. Regarding claim 18, there are multiple inlet channels (see Fig. 2). Regarding claim 19, there are multiple connected inlet flights (see Figs. 1 and 2). Regarding claim 20 there are multiple connected outlet flights (see Figs. 1 and 2).

17. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Housz (US 4,218,146). Regarding claim 1, Housz ('146) discloses an extruder mixer comprising a rotatable elongated screw (4) and means for rotating said screw (see col. 6, lines 21-23), said screw having a mixing section having an inlet channel (17), connected to a cross-axial pump (14), wherein a subsequent channel (17 or 18) is

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connected to further feed at least one subsequent cross-axial pump (14 or 13) that is bound by a flight (13). Regarding claim 2, the cross-axial pumps are bounded by channels on more than one side (see Fig. 3). Regarding claim 3, an upstream feeder (5) is connected. Regarding claim 4, a screw channel is provided (see Fig. 1).

Regarding claim 5, an output flight (7) is connected to a downstream flight of said mixer section. Regarding claim 6, an output flight (7) is connected to a channel of said extruder mixing section. Regarding claim 7 and 9, similarly and differently dimensioned channels are disclosed (see Fig 3). Claim 8, fails to further structurally limit the claimed apparatus because the orientation of a claimed apparatus is a matter of use, not structure. The manner in which an apparatus is used does not differentiate a claimed apparatus from the prior art. See MPEP 2114. Regarding claims 10 and 11, subsequent pumps such that the dimensions of said first and subsequent pumps are the same and different from each other are both disclosed (see Fig. 3). Regarding claims 13, said channels may be oriented at an angle to or parallel to the screw axis (Figs. 2 and 6). Claim 14 is difficult to address do to its high degree of indefiniteness; however, a channel bounded by a flight on one side is disclosed (see Fig 3). Regarding claim 15, at least some of said channels are bounded by a flight on two sides (see Fig. 3). Regarding claim 16, the manner in which an apparatus is used does not differentiate a claimed apparatus from the prior art. See MPEP 2114. Regarding claim 17, resistance devices (13,14) are provided on said screw. Regarding claim 18, there are multiple inlet channels (see Fig. 3). Regarding claim 19, there are multiple connected inlet flights

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(see Figs. 1 and 2). Regarding claim 20 there are multiple connected outlet flights (see Figs. 1 and 2).

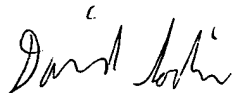
Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 703-308-1121. The examiner can normally be reached on 8:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



David Sorkin

February 25, 2002



**CHARLES E. COOLEY
PRIMARY EXAMINER**